THE INTERNEURON—UCLA Forum in Medical Sciences—Number 11—Edited by Mary A. B. Brazier, Brain Research Institute, University of California, Los Angeles. University of California Press, 2223 Fulton Street, Berkeley (94720), 1969. 552 pages, $20.00.

This volume provides the proceedings of a symposium held at UCLA in September, 1967, sponsored by the Brain Research Institute. It includes 20 papers and their verbatim discussions regarding the structure and function of interneurons, cells which are arranged between the major sensory and motor pathways of the brain and spinal cord. Interneurons have been defined as internuncial neurons which are neither sensory nor purely effector-innervating; rather, they connect neurons with neurons. They are essential contributors to the integrative action of the nervous system. The major topics considered include excitatory and inhibitory processes, and the organization of the cerebellum, thalamus, hippocampus and cortex. Extensive consideration is given to the relatively simply nervous systems of invertebrate animals, whose study recently has provided major advances in understanding neuronal and glial functions. The volume will be a key reference for the neurophysiologist and neuroanatomist and will be a challenge to clinicians interested in the current advances in the basic neurosciences.

ROBERT A. FISHMAN, M.D.

* * *

MENTAL RETARDATION—An Annual Review—Edited by Joseph Wortis, M.D., Director of Developmental Services and Studies Department of Psychiatry, Maimonides Medical Center, Brooklyn, N.Y. Grune & Stratton, Inc., Publishers, 381 Park Avenue South, New York (10016), 1970. 321 pages, $19.75.

This is the first volume of an annual review of advances and developments in the field of mental retardation. Possibly it was stimulated by the development of a number of University Centers for research and training in mental retardation as well as the increasing emphasis on mental health. The topics reviewed in this volume represent a wide variety of disciplines including the behavioral, social and biological sciences as well as community and service programs for the retarded. The disciplines include psychology, sociology, neurology, obstetrics, neuropathology, biochemistry, genetics, neurophysiology, public health, and the law.

Physicians will be primarily interested in those chapters which deal with biological or clinical problems of mental retardation. Kirman's chapter on Clinical Aspects offers a general orientation towards etiology and diagnosis. Kirman also contributes a chapter on Down's syndrome (Mongolism) and begins by drawing a parallel between the contributions to science of Gregor Mendel and of Langdon Down for whom the syndrome is now named. This is inaccurate since Mendel did not know about chromosomes and was concerned only with the inheritance of certain characters.

Sutton and Boveri (1903) were the first to draw the relationship between the genes and chromosomes and thus initiated the field of cytogenetics. The first suggestion that Down's syndrome might be due to a chromosomal imbalance was made by Waardenburg in 1934. Kirman reviews various aspects of Mongolism including clinical, cytogenetic and biochemical studies. The use of appropriate tables and figures would have made this a better review.

There is an extensive treatment by Voeller of neurological problems associated with retardation including 27 pages of useful tabulations of congenital malformations, chromosome anomalies and inborn errors of metabolism. The XXY (Klinefelter's syndrome) male is omitted as well as the 4p- (Wolf-Hirschhorn syndrome) and the 18q- syndrome, each of which is more common than many of the chromosome abnormalities cited. The tabulations on the inborn errors are complete; unfortunately, they are reviewed again by Snyderman in her chapter on inborn errors of metabolism. This chapter is sound as well as being interpretive in pointing out the problems in establishing the relationship of the metabolic error to mental retardation.

Each review has an excellent bibliography, e.g. Voeller's has 673 references, Snyderman's 164 and Kirman's 123. There is good breadth in the topics selected. Tighter editing might have removed some of the overlap in several sections. It is unfortunate that the price of the book ($19.75) may put it out of the reach of most individuals. However, it will be a valuable addition to a reference library on mental retardation.

S. W. WRIGHT, M.D.

* * *

MANUAL ON ARTIFICIAL ORGANS—Volume I—The Artificial Kidney—A Guide to Understanding for the Physician and for the Patient—Yukihiko Nosé, M.D., Ph.D., Head, Artificial Organs Research Laboratory, Research Division; Staff, The Cleveland Clinic Foundation, Cleveland. The C. V. Mosby Company, 3207 Washington Blvd., St. Louis, Mo. (63103), 1969. 343 pages, with 401 illustrations, $27.75.

The book by Dr. Yukihiko Nosé comes at an opportune moment in the development and expansion of dialysis as a therapeutic measure for patients with end-stage renal failure. The manual has sufficient theory and detailed technical knowledge which can be used effectively by physicians, nurses, and the dialysis patients. It is well illustrated and has a good source of references. It has a considerable amount of detailed information on the effects of dialysis and how to set up dialysis equipment.

This book should make the care of dialysis patients easier in that the theory and the working of most of the equipment is well illustrated and explained. Many of the complications of dialysis and how these can be safely corrected are given special attention. There is an excellent section on Scribner shunts—how they should be inserted and their post-operative care. The manual also talks about peritoneal dialysis, it discusses its advantages and disadvantages and also stresses that newer developments are being made. The future will probably see new and improved dialysis machines developed. The manual is recommended highly for medical libraries. It will be of value to the internist who is taking care of patients on chronic hemodialysis, the surgeon who is inserting Scribner shunts, the nurses and technicians who are participating in center and home dialysis. It is also a valuable book for students who would like to learn about the actual mechanics of the various dialysis machines.

SAMUEL L. KOUNTZ, M.D.

* * *

VIRAL INFECTIONS OF THE HUMAN FETUS—Gilles R. G. Monif, M.D., Assistant Professor of Obstetrics and Gynecology, University of Florida College of Medicine, Gainesville. The Macmillan Company, 866 Third Avenue, New York, N. Y. (10022), 1969. 164 pages, $9.95.

This monograph is concerned with the field of congenital viral infection and is apparently designed for use by the obstetrician or neonatologist. Two chapters are concerned with the general principles of virology, and an entire chapter has been devoted to each of the various viruses which are considered to produce human congenital viral infections. Each chapter contains a lengthy and current bibliography. The discussions are most descriptive in nature and present clinically relevant information regarding prophylaxis and expectations for fetal or newborn involvement. However, because of the very nature